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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,197

02/12/2007

Michael Schafer

071308.0695

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31625

7590

03/17/2009

BAKER BOTTS L.L.P.

PATENT DEPARTMENT

98 SAN JACINTO BLVD., SUITE 1500

AUSTIN, TX 78701-4039

EXAMINER

NGUYEN, CHAUN

ART UNIT

PAPER NUMBER

2831

MAIL DATE

DELIVERY MODE

03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,197	Applicant(s) SCHAFFER, MICHAEL	
	Examiner Chau N. Nguyen	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 5 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities: claim 3, line 2, delete "layer". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 6, 10, 13, 14, 16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wargin et al. (4,096,351).

Wargin et al. discloses a conductor (FIG. 2) comprising an insulating sheathing which has at least two layers and surrounds the conductor as a whole, wherein an inner layer (12) of said at least two layers surrounds the conductor so as to cover it completely, and wherein an outer layer (13) of said at least two layers has openings, meshes or frayed sections (re claims 1 and 16). Wargin et al. also discloses the outer layer being formed by a net or woven fabric which is made

from a plastic (re claims 6 and 20), the inner layer having a thickness of between 0.1 mm and 2 mm (col. 5, lines 9-10) (re claim 10), and a mineral oil as coolant (re claim 14). It is noted that the conductor of Wargin et al. can be used as windings in a liquid-cooled transformer or a liquid-cooled inductor coil since it comprises structure and material as claimed (re claims 1 and 13).

4. Claims 1-3, 8, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wargin et al. (4,088,830).

Wargin et al. discloses a conductor comprising an insulating sheathing which has at least two layers and surrounds the conductor as a whole, wherein an inner layer (not shown, col. 5, lines 66-68, the conductors formed into a unit by a wrap of filler cloth or paper tape) of said at least two layers surrounds the conductor so as to cover it completely, and wherein an outer layer (14) of said at least two layers has openings (18), meshes or frayed sections (re claims 1 and 16). Wargin et al. also discloses that at least one of the layers (the inner layer) is formed by being wound around the conductor (re claims 2 and 17), at least one of the layers (the inner layer) is made from paper (re claims 3 and 18), the outer layer has openings having a diameter of between 3 mm and 7 mm (col. 7, lines 7-8) (re

claim 8). It is noted that the conductor of Wargin et al. can be used for liquid-cooled transformer windings since it comprises structure and material as claimed.

5. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Neuroth (4,675,474).

Neuroth discloses a conductor (40) comprising an insulating sheathing which has at least two layers and surrounds the conductor as a whole, wherein an inner layer (41) of said at least two layers surrounds the conductor so as to cover it completely, and wherein an outer layer (43) of said at least two layers has openings (45), meshes or frayed sections. It is noted that the conductor of Neuroth can be used for liquid-cooled transformer windings since it comprises structure and material as claimed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-4, 8, 9, 12, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuroth.

Neuroth discloses the invention substantially as claimed except for each of the layers being wound around the conductor and the outer layer being made from paper. However, it would have been obvious to one skilled in the art to modify each of the insulating layers of Neuroth to be a wound layer around the conductor since an insulating layer being wound around a conductor is well-known in the art. It would have been obvious to one skilled in the art to use paper for the outer layer of Neuroth since paper is well-known in the art for being used as insulating material.

Re claims 8 and 9, it would have been obvious to one skilled in the art to choose suitable diameter of the outer layer openings and suitable proportion coverage of the inner layer to meet the specific use of the resulting conductor of Neuroth since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 12, it would have been obvious that depending on the specific use of the resulting conductor, one skilled in the art would use rectangular conductor with a cross section between 0.2 cm^2 and 40 cm^2 for the conductor of Neuroth

since rectangular conductor is well-known in the art for being used as conducting means.

8. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wargin et al. (4,096,351).

Wargin et al. discloses the invention substantially as claimed except for the woven fabric having individual meshes having a diameter of between 1.5 mm and 5 mm, the outer layer covering a proportion of between 30% and 80% of the inner layer, and each layer being a wound layer around the conductor.

Although not disclosed by Wargin et al., it would have been obvious to one skilled in the art to choose diameter and coverage proportion for the outer layer of Wargin et al. to meet the specific use of the resulting conductor since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

In re Aller, 105 USPQ 233.

Allowable Subject Matter

9. Claims 5 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutiérrez can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chau N Nguyen/
Chau N Nguyen
Primary Examiner
Art Unit 2831